

In the Claims:

Please amend claim 1 as indicated below. This listing of claims replaces all prior versions.

1. (*Currently amended*) Trench isolation structure, comprising:

a slab of semiconducting material having a surface and a buried layer which extends parallel to the surface, the buried layer having an upper surface and a lower surface; and

a trench groove extending at least from the surface through the buried layer down to a part of the slab below the buried layer and

the trench groove including a liner of a first insulating material on a wall of the trench groove, and

wherein a remaining part of the trench groove is at least partially filled with a first filler material, and wherein ~~the liner~~, in at least a first part of the trench groove, the liner has a thickness that is substantially in line with the upper and lower surfaces of the buried layer, ~~has a thickness~~ and that is larger than a thickness of the liner in a second part of the trench groove, the second part of the trench groove located below the first part.

2. (*Previously Presented*) Trench isolation structure according to claim 1, characterized in that the thickness of the liner in the first part of the trench groove is larger than a thickness of the liner in a third part of the trench groove, the third part of the trench groove located above the first part of the trench groove.

3. (*Previously Presented*) Trench isolation structure according to claim 1, characterized in that the first part of the trench groove is completely filled with the first insulating material.

4. (*Previously Presented*) Trench isolation structure according to claim 3, characterized in that the first part of the trench groove extends substantially in line with the buried layer.

5. (*Previously Presented*) Semiconductor assembly, comprising a trench isolation structure according to claim 1, and at least one semiconductor device present on the surface of the slab of semiconducting material, wherein the semiconductor device is insulated by means of the trench isolation structure.

6. (*Cancelled*)

7. (*Cancelled*)

8. (*Cancelled*)

9. (*Cancelled*)

10. (*Cancelled*)

11. (*Cancelled*).